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## Journal of the Society of Arts.

FRIDAY, MAY 31, 1867.

### Announcements by the Council.

It is with deep regret that the Council have to record the death of their Chairman, Sir THOMAS PHILLIPS, Q.C., on Sunday last, the 26th inst.

In consequence of this event, the Society's Ordinary Meeting, fixed for Wednesday evening last, was postponed by order of the Council.

#### ORDINARY MEETINGS.

Wednesday Evenings at Eight o'Clock:—

JUNE 5.—“On the Water Supply of the Metropolis in relation to the Conservancy of the Thames and its tributaries, and the demands of the Water Companies.” By J. BAILEY DENTON, Esq.

#### ANNUAL CONFERENCE.

The Sixteenth Annual Conference between the Council and the Representatives of the Institutions in Union and Local Boards will be held on Wednesday, the 19th June, at Twelve o'clock, noon. The Right Hon. HENRY AUSTIN BRUCE, M.P., will preside.

The Council will lay before the Conference the Secretary's Report of the Proceedings of the Union for the past year, and the Results of the Examinations, as well as the Programme of Examinations for 1868.

Secretaries of Institutions and Local Boards are requested to send, as soon as possible, the names of the Representatives appointed to attend the Conference, and early notice should be given of any subjects which Institutions or Local Boards may desire their Representatives to introduce to the notice of the Conference.

Secretaries of Institutions are requested to forward *at once* by book post, copies of the last Annual Reports of their Institutions.

#### ARTIZANS' VISITS TO PARIS.

The Council of the Society of Arts, feeling the importance of promoting the intelligent

study of the Paris Exhibition and the manufacturing establishments in France by artisans of the United Kingdom, have appointed a Committee in furtherance of this object, and on their recommendation, have passed the following minute:—

At the last and former International Exhibitions held in this country, arrangements were made by the French Government, to facilitate the visits of skilled artisans, and interesting reports on the exhibitions were made by them to their government. Believing that such visits on the part of skilled workmen to these great international displays not only exercise a beneficial influence upon the men themselves, but also upon the progress of industry in the country to which they belong, the Council of the Society of Arts have resolved to raise a fund to be employed, in aiding a limited number of English workmen to proceed to Paris for the purpose of studying the present French Exhibition.

To carry this object into effect, they have agreed on the following plan:—

1st. That a number of selected workmen (the number to depend on the amount of funds at the disposal of the Council) shall be assisted to proceed to and remain in Paris a sufficient time (say three weeks), for the purpose of making a careful study of the exhibition, and of such factories and workshops as they may desire to visit.

2nd. That every man so assisted shall, on his return, make a report to the Society of what he has observed during his stay, in reference to the special industry in which he is engaged, and that it be made a condition of the grant to each man that one-third of the amount be retained until his report shall be supplied to the Society.

3rd. The Council think it will be undesirable to fix the exact time for, or to prescribe the duration of, these visits, or to interfere with any of the arrangements the men may desire to make for their own accommodation; but, in order that they may take advantage of the facilities provided by the Commission organised by the French Government for the study of the exhibition, the men will be placed in communication with that Commission on their arrival in Paris.

4th. A considerable sum will be required satisfactorily to accomplish the important object undertaken by the Society, and, in order to raise these funds, the Council have determined to appeal to the members of the Society, who must be interested in the successful results of this movement, in the belief that they will not hesitate to join in a subscription for the furtherance of the undertaking; and they propose at the same time to communicate with the various Chambers of Commerce, inviting their counsel and support. The Council have decided to commence the subscription by a vote of one hundred guineas from the funds of the Society.

Members are invited to aid the Council in this undertaking by subscriptions, which should be forwarded to the Financial Officer at the Society's house.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, President of the Society, has presented a donation of Thirty Guineas.

#### SUBSCRIPTIONS.

The Lady-day subscriptions are due, and should be forwarded by cheque or Post-office order, crossed “Coutts and Co.,” and made payable to Mr. Samuel Thomas Davenport, Financial Officer.

- 158—Williams, John, 17, Birm. and Midl. Inst., pupil teacher—Arith. (2d)  
 1579—Williams, John, 17, Wolverhampton Ath., white-smith—Alg. (3d)  
 1469—Williams, William H., 23, Southampton Ath., carpenter—Music (2d)  
 883—Williamson, Jonathan, 21, Liverpool Inst., engineer—Mensur. (3d)  
 580—Williamson, John, 27, Pop. Evg. Classes, And. Univ., Glasgow, wood carver—Bot. (3d)  
 977—Willmott, George, 20, City of London Coll., telegraph operator—Arith. (1st); Bkpg. (1st)  
 1177—Willmott, Robert, 23, New Swindon M.I., engine fitter—Arith. (1st)  
 1427—Wilson, Edwin, 28, Scarborough M.I., hosier—Arith. (1st)  
 506—Wilson, James K., 19, Watt Sch. of Arts, Edinburgh, clerk—Arith. (3d)  
 1250—Wilson, John, 18, Paisley Artizans' Inst., engineer (apprentice)—Arith. (2d)  
 581—Wilson, John, 28, Pop. Evg. Classes, And. Univ., Glasgow, teacher—Anim. Phys. (3d)  
 710—Wilson, Joseph, 17, Halifax W.M.C., bookseller—Arith. (1st); Eng. Lit. (2d)  
 599—Wilson, Robert, 23, Glasgow Ath., clerk—Logic, &c. (2d)  
 665—Wilson, Robert, 16, Glasgow M.I., stationers' apprentice—Bkpg. (3d)  
 582—Wilson, Robert A., 20, Pop. Evg. Classes, And. Univ., Glasgow, clerk—Anim. Phys. (3d)  
 715—Wilson, Thomas, 22, Halifax W.M. Coll., carpet weaver—Bkpg. (3d)  
 1050—Wilson, William John, 24, Royal Polyt. Inst., engineers' clerk—Anim. Phys. (1st), with 1st prize; Dom. Econ. (1st), with 2d prize  
 336—Wingfield, Henry E., 17, Burrage-road Schools, Plumstead, engineer student—Geom. Dwg. (2d)  
 1030—Wittmann, Sidney A., 19, Royal Polyt. Inst., merchant—Germ. (2d); Italian (2d); French (3d)  
 812—Wolsey, William E., 18, King's Lynn Ath., attorney's clerk—Arith. (1st)  
 740—Womersley, Frederick W., 27, Hastings M.I., upholsterer—Bkpg. (2d); Alg. (2d)  
 657—Wood, Alexander, 18, Glasgow M.I., clerk—French (3d)  
 824—Wood, Edwin, 18, Leeds Ch. Inst., railway clerk—Bkpg. (1st)  
 720—Wood, William H., 18, Halifax W.M. Coll., clerk—Chem. (1st), with 1st prize  
 718—Woodhead, David, 21, Halifax W.M. Coll., oil-cloth maker—Chem. (2d)  
 \*1376—Woodhead, Joseph, 21, St. Thomas's Ch. Inst. (St. Helen's), assistant teacher—Arith. (3d); Geog. (3d)  
 45—Woodworth, William R., 16, S.E.Ry. Mech. Inst., railway clerk—Arith. (1st)  
 1447—Workman, Charles H., 16, Smethwick Loc. Board, glass painter—Arith. (3d); Free-hand Dwg. (3d)  
 1622—Worrall, William, 25, St. Thomas's School, Woolwich, writer—Geom. Dwg. (3d)  
 471—Wotton, George G., 23, Devonport M.I., attorney's clerk—Arith. (1st)  
 1477—Wren, Henry B., 19, Southampton Ath., clerk—Bkpg. (3d)  
 978—Wright, Frederick, 18, City of Lond. Coll., clerk—Bkpg. (2d)  
 1628—Wright, Henry E., 22, St. Thomas's Sch., Woolwich, schoolmaster—Geom. Dwg. (2d)  
 1408—Wright, John, 16, Salford W.M. Coll., hooker—Arith. (1st)  
 1122—Wright, John, 26, Manchester M.I., traveller—Bkpg. (1st)  
 1229—Wrigley, William, 21, Oldham Sci. Sch., warehouseman—Geom. Dwg. (3d)  
 1275—Wroe, James, 27, Swinton M.I., warehouseman—Music (3d)

- 640—Yors'on, William, 21, Glasgow Inst., bookbinder—Free-hd. Dwg. (3d)  
 1582—Young, Hannah E., 28, Wolverhampton Ath., private schoolmistress—Eng. Hist. (3d)  
 645—Young, James, 17, Glasgow M.I., apprentice—Arith. (1st)  
 598—Young, Sydney W., 21, Glasgow Ath., commercial clerk—Eng. Hist. (1st); Eng. Lit. (1st) with 2d prize; Logic, &c. (2d)  
 583—Young, William, 16, Pop. Evg. Classes, And. Univ., Glasgow, clerk—Bkpg. (3d)

Instances of copying at the Examinations held under the superintendence of the Local Board of the Science School, Belfast, having been detected and reported by two of the Society's Examiners, all the candidates implicated have been excluded from receiving certificates.

## Proceedings of the Society.

### CONVERSAZIONE.

A Conversazione took place at the South Kensington Museum on Thursday evening, the 23rd inst., when nearly 4,000 members of the Society and their friends were present. The bands of the Scots Fusilier Guards and of the Royal Horse Guards attended and performed selections of music during the evening.

## Proceedings of Institutions.

**METROPOLITAN ASSOCIATION FOR PROMOTING THE EDUCATION OF ADULTS.**—The fourth annual gathering for athletic sports will be held at the Crystal Palace, on the 1st July next, to commence at half-past one o'clock punctually. The sports will include flat races, 100 yards, 300 yards, and 500 yards, and one mile, throwing the cricket ball, running high jumps, running long jumps, hurdle races, putting the stone, throwing the hammer, a sack race, 100 yards, concluding with a consolation hurdle race of 200 yards with ten hurdles. The prizes vary from 5s. to 15s. Members of Institutions connected with the Metropolitan Association who intend to compete must send in their names to the Secretary of the Institution to which they belong on or before June 24th. Referees and umpires will be appointed by the committee. No prize will be given unless at least five duly qualified candidates contend for it. Not more than four members of any one Institution will be allowed to contend for each separate event. These sports being solely intended to give encouragement to exercises of strength and skill among the members of the Institutions in Union with the Association, professionals, or any whom the referees may deem ineligible, will be rigorously excluded. There will be the usual attractions of the Crystal Palace, with a balloon ascent, singing by a choir of 300 voices, brass bands, &c.

### THE PARIS EXHIBITION.

There are few of the classes on the English side better filled than that which includes ores and minerals, rough iron, and other metals, tools, china clay, fire bricks, tea-trays, nails, pins, needles, and buttons. The space was totally inadequate to the number of exhibitors, so that several sections have necessarily been split in two, and placed part in this court and part in that of machinery; iron tubes, springs, buffers, iron gates, nuts and bolts afford instances of this. A similar remark will apply to carpets, which, for want of wall space elsewhere, are

placed in the machinery court, where also are, in this case according to the classification, carriages, saddlery, harness, fishing tackle, archery appliances, crucibles, and filters. Those who wish to examine all the specimens of British floor cloth, must not omit to pay a visit to the food department, which is also an appendage of the machinery court.

The British section of class 40,—“Raw materials produced by extraction and their products,” contains a choice collection, more remarkable for intrinsic goodness than for quantity or show; the ores are generally well chosen and well arranged; of other minerals there are scarcely any except china clay, which is said to be in demand in France, and coal, which is largely represented. The exhibitors of raw iron, steel, railway and other shaped iron and steel, wheels and axles, specimens of rivetted work, iron and tinned plates, copper in every form, lead, tin, and their compounds, tubes, joints, machine-made bolts and nuts, wire and wire-work are numerous, and most of the specimens exhibited interesting. There is also a fine though not a large show of cutting and other tools, saws, files and springs, and cut-steel goods, corkscrews and similar articles being placed here, and not with cutlery, in the furniture group.

One of the finest illustrations of a grand industry is the collection of ores, metal, and drawings of the great Northumberland and Durham (W.B.) lead works, arranged by a gentleman well known, and formerly a member of the Council of the Society of Arts, Mr. Thomas Sopwith. These works extend over about two hundred square miles, and produce from 8,000 to 9,000 tons of lead per annum. The chart of the works shows the seven-mile level, from Allendale to Allenheads, opened eight or ten years since, and the strata and workings are well illustrated by diagrams. The minerals of the district are arranged in scientific order.

Another exhibition which attracts great attention is that of Messrs. Matthey and Johnson, of Hatton-garden, who show two of the finest platinum apparatus for the rectification of sulphuric acid in the exhibition, besides a number of smaller apparatus and ingots of the same metal, several beautiful arrangements for analytical operations, and a rare collection of preparations of the precious and rare metals. The contents of Messrs. Matthey and Johnson's cases are said to be of the value of £20,000.

While on the subject of metals, machinery, and hardware, it will not be out of place to pay a visit to the water-side, where Great Britain has a noble exhibition of marine engines, apparatus, and nautical objects of various kinds. This portion of the exhibition is easily reached by passing under the quay, either beneath the steel bridge near the French lighthouse, or by the tunnel on the English side. The visitor will there find two large ranges of buildings, one occupied by the French the other by the English commission; on each side there is one large shed devoted to marine engines and apparatus, and both are admirably filled, well arranged, and well lighted. On the French side there are more large actual machines than on the English.

The Admiralty and the Trinity House are splendidly represented at the exhibition, but a portion of the contributions of the former, including artillery and nearly the whole of those of the latter establishment, are not here, but in the machine court, within the main building or in the park. The Admiralty has sent an extensive series of models of about eighty vessels belonging to the navy, to illustrate British ship-building since the introduction of the screw propeller. They include vessels of all classes—two and three deckers, frigates, corvettes, gun boats, iron-plated ships, turret ships, dispatch boats, and transports, and all are made to the same scale, namely, a quarter of an inch to the foot, and exhibit a strange variety of form, showing how the necessities of the service and the views of ship-builders have modified the lines of our floating castles. The Board of Admiralty

also shows a fine pair of marine engines, of 350 horse-power, on the expansive principle, with surface condensers, made by Messrs. Penn and Son, of Greenwich, for H.M.S. *Sappho*; a model of the engines, of 1,350 horse-power, made by the same firm for the *Minotaur* and the *Northumberland*; and a launch engine and boiler complete, also by Penn and Sons. The board also shows the engines of a steam launch in their place in the little craft; these consists of two pairs of high-pressure engines, of the total nominal power of six horses, manufactured by the firm of Maudslay, Sons, and Field.

The launch in which those engines are fixed is 42 feet long by 11ft. 6in. broad, and the swift movements of the little craft on the Seine, and the readiness with which she is manœuvred with the aid of her twin screws, call forth great admiration. She carries a rifled 12-pounder at her bow, to show her quality as a member of the Royal Navy of England.

Besides this steam launch, there are exhibited a small pinnace, a cutter, jolly-boat, dingy, gig, and various kinds of life-boats.

The Admiralty shows a fine collection of models illustrative of the system of construction of iron ships, and of the general fittings of men-of-war; specimens of the food prepared by the Government itself for the use of the navy, and a collection of flags, charts, books, &c.

The collection of models exhibited by Captain Coles, R.N., Messrs. Napier, Laird, White, the ship-building companies, and other establishments, is large and fine, and makes an admirable pendant to the series of Admiralty models.

Amongst the large number of interesting objects contained in these sheds must be mentioned the new code of international commercial signals, the series of diagrams illustrative of the regulations of Lloyd's register, and a noble life-boat, rocket apparatus, rafts, and all kinds of arrangements for the saving of life from shipwreck.

The British Commission has established a lighter for the convenience of passing to and from the boats, and in a short time there will be a crowd of yachts and boats of all descriptions around it.

Other nations have some specimens of naval construction in the water here, amongst which are six or more steam launches.

A new object of interest has recently appeared in the centre of the exhibition; in the inner garden is a polygonal building, the upper story of which is destined to receive the crown jewels of France; the lower portion of this pavilion is devoted to the exhibition of the money, weights, and measures of all the exhibiting nations, each occupying a compartment of the polygon, and in the same order as the sectors of the main building devoted to them.

The number of persons visiting the exhibition is now very large, although the weather for some time has been far from attractive. There has, however, been an improvement in the latter respect, and a corresponding increase of numbers, during the last few days.

#### OPENING OF THE GALLO-ROMAN MUSEUM AT SAINT GERMAIN.

A considerable portion of this fine old château has been restored in the spirit of the original plan of the time of François Premier, thus sweeping away the whole of the additions made by Mansard in the time of Louis XIV. The new portions—for they are almost rebuilt—give an excellent idea of a stronghold of the renaissance, although the form is peculiar, being that of a pentagon, instead of the more common parallelogram. When completely terminated—a work which will occupy a dozen years at least—the structure will have a very imposing effect.

The museum was opened by the Emperor on the 12th instant. The following account of its contents and arrangement is abstracted from the *Moniteur des Arts*:—

In the first *salle* are collected specimens of wrought flint articles, found with bones of extinct species of animals; bones carved, engraved, hollowed, and otherwise fashioned for religious or domestic purposes by the hand of man; a fine collection of flint weapons, presented to the Emperor by the King of Denmark; objects obtained from the sand of the basin of the Seine; and the discoveries of M. Boucher de Perthes in the valley of the Somme.

The second *salle* is devoted to megalithic sepulchral monuments, the dolmens, monoliths, and other works of the first age of stone construction, together with the more artistic flint weapons, and bone instruments, and the first rude specimens of the potter's art of France. These objects are classed by groups, according to the provinces from which they are derived; and opposite the cases which contain them are models, one-twentieth of the real size, of the principal dolmens of the period beneath which the greater portion of these relics have been found.

The third *salle* is entirely occupied by one of these reproductions, although the model is on the scale already named; this is the celebrated Tumulus Dolmen of Gavrinis. Who shall decypher the mysterious characters engraved on the granite of the inner walls of this antique structure? Who shall find the key to these hieroglyphics, the strange turns and contortions of which resemble somewhat the primitive sculptures of India or the decorations of Central America?

The fourth *salle* contains Gallic inscriptions and medals, and is the last of the series at present open on the lower floor. Access is obtained to the upper story by means of the staircase of François I., which M. Eugène Millet, the architect, has restored with great taste and skill.

In the first *salle* above is the collection of Lacustrine antiquities. The age of stone has not exhausted its productions, for here we find flint hatchets, arrow heads, knives and tools, with implements made of bone, tortoiseshell, and hard woods; but the era of bronze begins to show its works. Stone gives place to bronze, and we find swords, hollow hatchets of various forms, collars and necklaces; large poignards have taken the place of javelins and other weapons of that class, as the tomahawk or club of the savage. The nearer we descend towards the historic period, the more numerous become those relics of the Helvetian lakes. Not only has bronze triumphed over time, but by its side are to be found the most fragile, humble, and apparently the most ephemeral utensils of domestic life, such as fragments of woollen garments and fabrics, fishing nets, hunting apparatus, small objects of the female toilet, and even specimens of human food, such as grains of wheat and barley, preserved by some curious accident.

Another *salle* is devoted to the Gallic period of the time of Brennus, and contains numbers of casques, pieces of armour, for the chest, arms, legs, and other parts of the body, bucklers, belts, arrows, swords, and fragments of all kinds, together with a certain number of useful domestic and other implements.

The adjoining *salle* is devoted to Celtic productions, in which the peculiar taste, fancy, and workmanship of various tribes become apparent; the objects in this department of the museum exhibit the patient work of the ancient inhabitants of the soil, and exhibit in their diverse forms the individuality of the various tribes disseminated over the Celtic soil, the mark, the signature, as it were, of their producers.

The last division is to be devoted to the period of the Roman conquest, but this portion of the museum is not yet completed. It is destined to illustrate not only the Roman conquest, but the domination of the ancient conquerors of the world, and is to contain plans in relief of the principal sieges undertaken by the conqueror of the Gaul, with the original, or, in their absence, *fac-similes* of the arms, machines, engines, and weapons employed—a practical commentary on the "Commentaries."

The new museum has been opened to the public, and its doors will, in future, remain open on Sundays, Tuesdays, and Thursdays, between the hours of eleven and five. It will, however, only be actually closed on Saturdays and Mondays, Wednesdays and Fridays being devoted to study, on which days students, and especially foreign students, will have no difficulty in obtaining an admission.

The museum of St. Germain is an important addition to the attractions of Paris, especially for the archæologist.

## Fine Arts.

KENSINGTON MUSEUM.—The plaster cast taken by Signor Brucciani from the portal della gloria of the Cathedral of Santiago, Spain, has been temporarily put up in the Kensington Museum. It is difficult to overestimate the interest and value of this magnificent work, executed by Master Matthew, a native Spanish sculptor, about the year 1188. The student of architecture and of ornamental art will recognise in this portal—which is supposed to have been wrought as well as designed by Master Matthew—a combination of diverse historic schools. The draperies and the type and treatment of the figures are in some parts Byzantine, yet the Romanesque and Lombardic style is dominant in the rude vigour of the handling, in the naturalism of the forms, and in the bold use of the grotesque. The insertion of griffins and other monsters at the base of the columns is characteristic of churches in Verona and other cities in Northern Italy. Mr. Street has engraved this grand portal as a frontispiece to his volume on "Gothic Architecture in Spain." He describes the Cathedral of Santiago as of "extreme magnificence and interest." Of the triple portal now reproduced in the Kensington Museum, Mr. Street writes as follows:—"It is now necessary to say something about what is to an architect the chief glory of this noble church—its grand western entrance, fitly called the Portico della Gloria. On the whole, with no small experience to warrant my speaking, and yet with a due sense of the rashness of too general an approval, I cannot avoid pronouncing this effort of Master Matthew's at Santiago to be one of the grandest glories of Christian art." The most remarkable portions of the work are the tympanum and the archivolt. Round the latter are ranged figures of the four-and-twenty elders that encircle "The Last Judgment," which occupies the tympanum. More correctly speaking, however, this bas-relief represents, not "The Last Judgment," but "Christ in Glory;" hence the name which the portal bears, "Della Gloria." The treatment of the subject accords with prescribed art, or rather ecclesiastical custom—Christ in the centre, the emblems of the four Evangelists attendant around, and beyond angels and the multitude of the heavenly host. Lady Eastlake records the fact that "Christ in glory is seen frequently over the side doorway of early Gothic churches of the 11th and 12th centuries." Mr. Street considers it probable that the entire portal was the handiwork of Master Matthew, unaided by assistants. He assigns a period of twenty years to its execution; the same time was taken by Ghiberti in the execution of his famed bronze doors to the Baptistery in Florence. Mr. Street sees in Master Matthew's work both conformity to custom and precedent, and yet freshness and originality. It is interesting to know that the same qualities are present in the works of the Pisani in Italy, and that from the same causes. Art was in both instances alike in transition from conventionalism and tradition to nature. The execution has the vigour, and even the rudeness, which usually accompany the struggle for independence. Mr. Street reports that on the original portal "traces everywhere remain of the old delicate colouring with which the sculpture was covered." This plaster cast from Santiago, acquired for Kensington, may be followed as it has been

preceded by other like reproductions. The cost, which is considerable, is expended in the cause of art education. The general policy of the department in this matter was indicated by Mr. Cole, in the discussion which ensued on the paper read by Mr. Fergusson before the Society upon Indian Architecture. Mr. Cole then said "the public money had been already employed in obtaining casts of the finest objects in Italy, Spain, and France. We had recently imported into this country, at a cost of between £2,000 and £3,000, a cast of the beautiful gate of the convent of Santiago, in Spain; and, if we were to have these casts from Spain, it would be well to have them from India also. This was the more important when it was recollected how rapid was the destruction of such works in that country."

**ARUNDEL SOCIETY.**—This society has been seeking to promote the knowledge of art in some new channels. In addition to its usual reproductions from pictures, it has latterly been anxious to lead the way in the publication of faithful memorials of Italian monumental works. All students know that some of the most valued products of Italian art take the form of sepulchral monuments. These architectonic and sculpturesque works are often not only masterpieces for modelling, but also frequently admirable as polychrome decoration. Hence it has been thought that the process of chromo-lithography would enable the Arundel Society to give at once trustworthy and popular reproductions of monuments, which, though long renowned, remain necessarily unknown to the general public. Drawings, both pictorial and to scale, have been made for the approval of the Council. It may also be mentioned that in the Society's rooms, Bond-street, have been on view for some time past, accurate water-colour copies of the several compartments of John Van Eyck's masterpiece at Ghent, "The Adoration of the Lamb." The Council propose shortly to enter on the arduous labour of reproducing this famed work through the medium of chromo-lithography.

**COLLEGE OF APPLIED ART, PARIS.**—It will be remembered that out of the fine exhibition of decorative works prepared by the Union Centrale des Beaux Arts, and held in the Palais de l'Industrie in the year 1865, there arose a proposition to create a regular college for pupils in the applied arts, which was announced at the time in the *Journal*. The first step was then taken towards the realization of the project by the purchase of a piece of ground for the intended college in the Avenue Philippe Auguste, between the Quartier Saint Antoine and Vincennes. The suggestion received the sanction of the Minister of Public Instruction, and, we believe, of the Emperor, and it is now stated that the preliminary measures have been taken, and that the establishment of the new college will be proceeded with without delay. The intention is to give to the youth of all classes intended for the artistic industries a thorough classical and literary education (classical in the art sense, probably, only), and at the same time to afford them full opportunities of practising the manual operations connected with applied art. The college will receive both boarders and out-of-door scholars. The establishment is to include special museums devoted to each of the great epochs of the history of art, that is to say, of antiquity, of the middle ages, of the renaissance, and of the four Louis, ending with the sixteenth; also a museum of Eastern art, and a library. In addition to these there are to be conservatories for ornamental plants; a department of artificial plants and flowers, for the study of arrangement; cabinets of physics, chemistry, natural history, &c.; a museum of contemporary art, in which will be exhibited at certain seasons specimens of the most remarkable works of the day. Lastly, besides schools for the daily study of drawing, painting, modelling, carving, &c., there will be a number of ateliers which will be accorded gratuitously to the first artists in each class on condition that they allow the pupils to be present during certain fixed hours of the day, when they are engaged in producing works which are to serve as models

for industrial art. Six of these ateliers are already decided on, namely—one for modelling and carving of the human figure and animals, to be presided over by M. Barye, a very able sculptor; an atelier for chasing metals, and the manufacture of goldsmiths' work and bronzes—the brothers Fanniere; one for the decoration of porcelain, faïences, and enamels—M. Claudius Popelin; another for designs for paper-hangings—M. Poterlet; a fifth for decorative painting—M. Moynet; lastly, an atelier for composition and decoration of fabrics, carpets, and furniture; to which no name is yet attached. The scheme is to construct the college to receive 500 resident pupils, and 100 students, with separate chambers. The duration of the course of study is proposed to be fixed at six years, with a uniform charge for pupils of all ages of 1,700 francs per annum. It may be mentioned in addition that the society also intends to maintain its present museum and gratuitous conferences in the Place Royale, for the benefit of those actually engaged in artistic industries. The projectors and supporters of both establishments are Parisian manufacturers or art designers, aided by the Minister of Public Instruction and the Marquis de Morny.

## Commerce.

**SUGAR AND COFFEE IN BRAZIL.**—Mr. Consul Morgan, in his commercial report on the trade of the port of Bahia (Brazil) for the year 1866, states that sugar, though formerly almost entirely the product of slave labour, does not appear to have suffered from the complete abolition and cessation of the slave traffic, seeing that the exports of last year amounted to fully 48,000 tons, whilst the average of the preceding twenty-five years was only about 41,000 tons. Of the total amount exported, about 36,000 tons went to Great Britain, or a channel port for orders; 1,200 tons direct to France; 2,700 to Sweden; 2,700 tons to Portugal; 3,000 to the United States; and the remainder to the River Plate, Holland, Germany, and Spain. The proportion of the different qualities of sugar produced has considerably altered of late; planters have found out that it is not worth their while to make the better qualities, the difference not paying for the trouble and delay, and now but seldom take the pains of claying their sugar—another confirmation of the mischievous effect of the scale of sugar duties, in not only destroying motive for improvement, but in actually inducing the planters to make inferior sugars. In consequence of this, less than one-fourth of the whole crop now consists of "whites," about one-fourth of "clayed browns," and above one-half is raw sugar. The crop of coffee for the year 1866 was considerably below that of 1865, being only 69,200 bags,\* against 99,700 bags in 1865; but still the crop was an average one, the returns of the last twenty years, from 1846 to 1865, giving an average of only 43,201 bags. The value of coffee has been less affected than other articles, the price throughout the year having ruled from 5·250 dollars to 5·600 dollars per arroba, the average price being 5·400 dollars per arroba. This does not include "washed" coffee, which only comes to market in very small quantities, and is mostly shipped to France. Of the 69,200 bags exported, 33,000 were sent to France; 13,700 bags to Great Britain and to the Channel for orders; 9,400 bags to Gibraltar for orders; 4,800 to Germany; 4,300 to Genoa; 2,700 to Portugal, partly Lisbon, for orders; and 1,200 to the United States.

**SUGAR.**—The proportion of each description delivered for home consumption at the port of London in the first sixteen weeks of the year 1867 has been as follows:—British West India, 27,266 tons; Beetroot, 6,475 tons; Manila, 5,036 tons; Cuba Muscovado, 4,515 tons; Havana, 4,060 tons; Porto Rico, 3,050 tons; Madras,

\* A Bahia bag of Coffee contains 4 arrobas, or 128lbs., whilst at Rio de Janeiro a bag contains 5 arrobas, or 160lbs.

2,735 tons; Mauritius, 2,696 tons; Penang, 1,451 tons; Brazil, 1,338 tons; Bengal, 1,291 tons; Java, 19 tons; total, 59,932 tons.

## Colonies.

**POSTAL COMMUNICATION.**—The postal conference of representatives of different colonies, which met at Melbourne, has come to the following decision:—"That, in order to establish a postal system affording regular fortnightly communication by three lines, *via* Brisbane and Torres Straits to Singapore, *via* Melbourne and South Australia to Suez, and *via* New Zealand to Panama, with the necessary branch services, the six colonies represented at this conference should contribute a moiety, not exceeding £200,000, of the total cost, in the following proportions, viz.:—Victoria, one-fourth; New South Wales, one-fourth; New Zealand, one-fourth; Queensland, one-seventh; South Australia, one-twelfth; Tasmania, one-fiftieth." According to this, the three first colonies will have to pay £50,000 each, and the remaining £50,000 will be divided between the other colonies as follows:—Queensland, £28,571; South Australia, £16,666; and Tasmania, £4,000. As regards Western Australia, the conference decided that, as there was no representative present, the contribution of that colony to the postal service should remain as before. The next important matter was the question of routes, upon which a series of resolutions were agreed to. Their purport is as follows:—The Adelaide mails, by the Suez line, to be delivered by the ocean steamer at Kangaroo Island, and conveyed to and from that island and Port Adelaide by a branch service. Branch steamers are also to leave Melbourne and Sydney for Adelaide and Tasmania on the arrival of the Panama and Singapore steamers. The whole of the branches are to be done at a speed of not less than nine miles and a-half per hour, and the several branch steamers are to take their departure on the outward journey within six hours of the arrival of the trunk-line steamer; whilst, if necessary, they are to await her arrival for a period not exceeding three days beyond the date of her being due.

**THE MANUFACTURES OF NEW SOUTH WALES.**—The total population of the colony of New South Wales is about 430,000, chiefly engaged in gold mining, coal getting, agriculture, pastoral pursuits, and commerce. Notwithstanding the limited labour-market, there have sprung up in this colony more than two thousand manufactures and works of various kinds. Some of these are connected with, and dependent on, agriculture; as the manufacture of hay-pressing, reaping, and chaff-cutting machines. Then there are boiling down establishments, soap and candle manufactories, and other places where the raw materials produced by the pastoral interest are worked up. There are also three distilleries, sugar refineries, and breweries. There are upwards of 300 places for plastic manufactures and the production of building materials. There are about a hundred works for brass, iron, lead, and the manufacture of machines. The manufacture of boots and shoes by machinery near Sydney employs many hands; and there is a large variety of miscellaneous works, the number of which will advance naturally as population increases. A great proportion of clothing too is made in the colony. It is a significant fact that while the population has increased about one-third during the last ten years, the manufactures and works have increased sevenfold.

## Notes.

**BRITISH ASSOCIATION OF GAS MANAGERS.**—The fourth annual general meeting of the members of this association will be held at the School of Art, Waverley-street, Not-

tingham, on Tuesday, Wednesday, and Thursday, the 11th, 12th, and 13th June. Thomas Hawkesley, Esq., C.E., President of the association, will occupy the chair. On the Tuesday, at the morning meeting, at twelve o'clock, an inaugural address will be delivered by the president. At the evening meeting, at seven p.m., a lecture will be given by Dr. Letheby, on "The Utilisation of the Residual Products of the Manufacture of Coal Gas, with especial reference to the Production of Aniline Colours from Coal Tar." On the Wednesday the chair will be taken at eleven a.m.; various papers and communications will be read. At five p.m. the members will dine with the President, at the George Hotel, Carlton-street. The Thursday will be occupied by visits of the members to various works and places of interest in Nottingham and the neighbourhood.

**THE INTERNATIONAL CONGRESS OF ANTWERP.**—This meeting is appointed to open on the 25th of August, and to close on the 1st of the following month. The meetings will be under the honorary presidency of the Minister of the Interior, and will take place in the rooms of the Royal Society of Harmony, on the Place of the old canal at Antwerp. The congress will coincide in time with the triennial exhibition of works of art and with the communal *fêtes*; it is said that nearly all the historical and archæological celebrities have inscribed their names as members of the congress, and that the greater part of the European governments have appointed official representatives. The King of the Belgians has promised to attend the congress in person. It may be convenient for the members of the Society of Arts and the readers of the *Journal* to know that adhesions are to be addressed to the Secrétaires-Généraux, 19, Rue du Mai, Antwerp.

## MEETINGS FOR THE ENSUING WEEK.

- MON.....** Odontological, 8.  
R. Geographical, 8½. Mr. A. G. Findlay, "On Dr. Livingstone's Last Journey in relation to the Sources of the Nile."  
R. United Service Inst., 8½. Capt. A. Moncrieff, "Further Particulars regarding Moncrieff's Protected Barbette System."  
Entomological, 7.  
British Architects, 8.  
Victoria Inst., 8.  
Royal Inst., 2. General Monthly Meeting.
- TUES ...** R. Horticultural, 3. General Meeting.  
Royal Inst., 3. Prof. Miller, "On Spectrum Analysis."  
Anthropological, 8.  
Geologists' Assoc., 8.
- WED ...** Society of Arts, 8. Mr. J. B. Denton, "On the Water Supply of the Metropolis in relation to the Conservancy of the Thames and its tributaries, and the demands of the Water Companies."  
Geological, 8. 1. Mr. D. Mackintosh, "On some striking Instances of the Terminal Curvature of Slaty Laminae in West Somerset." 2. Prof. H. B. Medlicott, "The Alps and the Himalayas: a Geological Comparison." 3. Mr. Seales V. Wood, jun., "On the Post-glacial Structure of the South-east of England."  
Obstetrical, 8.
- THUR ...** London Inst., 7. Prof. Bentley, "On Botany."  
Royal Inst., 3. Prof. Huxley, "On Ethnology."  
Antiquaries, 8½.  
Linnæan, 8. 1. Sir John Lubbock, Bart., "On the *Thysanura*." 2. Dr. Pettigrew, "On the Mechanical Appliances by which Flight is attained in the Animal Kingdom." 3. Mr. R. Spruce, "On Insect-migrations in South America."  
Chemical, 8. Sir B. C. Brodie, "Mode of Representation afforded by Chemical Calculus."  
Royal Society Club, 6.
- FRI .....** Philological, 8.  
Royal Inst. Mr. Ruskin, "Present State of Modern Art, &c."  
Archæological Inst., 4.
- SAT .....** Royal Inst., 3. Prof. Huxley, "On Ethnology."

## PARLIAMENTARY REPORTS.

### SESSIONAL PRINTED PAPERS.

*Delivered on 21st May, 1867.*

- Par. Numb.  
151. Bill—Commons Inclosure Act Amendment.  
161. " Water Supply.  
162. " Pier and Harbour Orders Confirmation (No. 2).

The "Tornado"—Correspondence (Part VII.) (corrected pages).  
Education—Return.  
Manufactures, Commerce, &c.—Reports by Her Majesty's Secretaries  
of Embassy and Legation (No. 4, 1867).

*Delivered on 22nd May, 1867.*

137. Bill—Galway Harbour (Composition of Debt).  
165. „ Habeas Corpus Suspension (Ireland) Act Continuance  
(No. 2).  
268. Metropolitan Local Government, &c.—Second Report.  
Public Petitions—Twenty-fourth Report.

Session 1866.

442. (c) Poor Rates and Pauperism—Return (C).

*Delivered on 23rd May, 1867.*

102. Bill—Industrial Schools (Ireland) (amended).  
117. „ Limerick Harbour (Composition of Debt).  
167. „ Public Records (Ireland).  
159. „ County Treasurers (Ireland) (amended).  
163. „ Pier and Harbour Orders Confirmation (amended).  
73. (v.) Railway and Canal Bills—Sixth Report.  
101. (i.) London, Chatham, and Dover Railway Company—Account.  
118. (ii.) Gas (Metropolis)—Correspondence.  
181. Army (Whitworth Rifles)—Return.  
206. (i.) Storm Signals—Return.

*Delivered on 24th May, 1867.*

164. Bill—Railway Companies (amended).  
167. „ Local Government Supplemental (No. 2).  
304. Habeas Corpus Suspension (Ireland) Act—Returns.  
307. Church of England and Ireland in the Colonies—Despatch.  
Digest of Law—First Report of Commissioners.

*Delivered on 25th May, 1867.*

261. Royal Commissions—Return.  
263. Merchant Ships—Correspondence.  
286. Courts of Probate (London and Dublin)—Account.  
314. Exchequer Bonds—Account.  
Army (Transport and Supply Departments)—Report.  
Public Petitions—Twenty-fifth Report.

*Delivered on 27th May, 1867.*

152. Bill—Agricultural Children's Education.  
287. Sir John Port's Hospital and School—Report.  
291. Prisons—Returns.  
293. Tithes—Return.  
295. Army (Material of War)—Return.  
305. Parliamentary Boroughs—Returns.  
Rivers Pollution—Second Report of Commissioners (River Lea),  
Vol. 1.  
Turkey and Greece—Reports relating to the Condition of Christians.

*Delivered on 28th May, 1867.*

156. Increase and Diminution (Public Offices)—Abstract of Accounts.  
266. Disasters at Sea—Memorials, &c.  
319. Police (Scotland)—Ninth Report of Her Majesty's Inspector of  
Constabulary.

## Patents.

*From Commissioners of Patents' Journal, May 24th.*

### GRANTS OF PROVISIONAL PROTECTION.

- Automaton figures, &c.—1334—J. S. Cavell.  
Bale fastener—1358—W. R. Lake.  
Balloons—1392—W. Smyth.  
Bedsteads, &c.—1293—E. Kriehhoff.  
Beer, &c., apparatus for storing—1289—C. Ritchie.  
Beer engines—1297—J. Holmes.  
Boilers, preventing explosion of—1363—G. H. Cail.  
Books, &c., parcel—1296—G. F. Millin and E. J. Potter.  
Boots and shoes—1265—J. H. Johnson.  
Bottles, cleaning—1372—M. Fleming.  
Breaks, railway—1338—R. Marsden and U. Bromley.  
Bricks, &c., manufacturing—1316—T. R. Crampton.  
Bridles—1192—W. R. Lake.  
Buffers—1328—G. Wilson.  
Carpet sweeping apparatus—1197—S. P. Worth.  
Carriages—1322—K. J. Winslow.  
Carriages, &c., railway—1304—H. Allman.  
Casks—1380—C. Ritchie.  
Cast-iron, conversion of—1295—J. Heaton.  
Chlorine, &c.—133—W. Weldon.  
Clocks—1394—C. Marlow.  
Coal, &c., apparatus for getting—1311—T. W. Bunning and W.  
Cochrane.  
Coal, &c., distillation of—284—J. Buhrer and A. P. Price.  
Coal mining machinery—1388—C. Jones.  
Coffee, apparatus for making infusions of—1281—F. Walton.  
Corn, &c., grinding—1172—A. Rigg.  
Cotton, preparing—1152—J. Galloway and T. Settle.  
Dampers—1325—W. Schofield and E. Smith.  
Dials—1201—J. Raywood.  
Doors, securing the handles of—1352—J. Crockett.  
Drying machines—1267—J. L. Norton.  
Engines, rotary—1398—G. F. Russell.  
Engines, steam—1390—C. H. Trask.  
Fabrics—1310—J. Hemsley.  
Fabrics, textile—976—R. Wolstenholme.  
Fire, apparatus for giving alarm in cases of—1302—T. Crossley.

- Fire-arms—1259—J. J. Krafft.  
Fire-arms, breech-loading—1165—C. De Tivoli.  
Fire-arms, breech-loading—1255—C. De Grelle.  
Fire-arms, breech-loading—1299—J. G. Rollins.  
Flour—1386—J. Norman and W. Hay.  
Fluids, measuring the flow of—1303—C. B. Reitz.  
Fortifications, construction of—1271—J. Brown.  
Fountains—1320—J. Nadai.  
Gas—1382—G. McKenzie.  
Gases—1356—C. D. Abel.  
Grain, cleaning—1346—W. R. Lake.  
Gun barrels, &c.—1253—J. Marshall.  
Hay cutters—1263—J. Howell.  
Hoes—1354—J. and A. Fairley.  
Hoop iron—1249—E. Deeley.  
Lamps—1038—W. Clark.  
Lamps—1301—T. Crossley.  
Lamps—1315—P. Brash and W. Young.  
Lamps, means of lighting—1330—J. H. Johnson.  
Locks—1326—W. R. Lake.  
Locomotives—1285—J. H. Johnson.  
Looms—1269—E. B. Bigelow.  
Looms—1274—H. A. Bonneville.  
Looms—1324—W. Clark.  
Lubricators—261—F. Jossa.  
Lubricators—1378—W. E. Newton.  
Metallic surfaces, coating—1342—J. B. Blythe.  
Millstones—1245—G. Davies.  
Motive-power apparatus—1314—J. Baker.  
Motive-power, manual—1336—G. Harthan.  
Needles—1318—B. H. Smith.  
Nets, trawl—1332—S. E. Hallett.  
Nutmeg grater—1287—W. R. Lake.  
Oils, apparatus for burning hydro-carbon—1329—T. Crow.  
Palisades—1257—A. Loust.  
Pipes, colouring tobacco—1132—J. S. Brooks.  
Rails, &c.—1327—G. Wilson.  
Ratchet levers—1360—T. A. Weston.  
Rollers—1219—J. and C. Moseley.  
Sails, securing—1323—R. Taylor and E. Poulson.  
Screw propellers—1247—H. S. Swift.  
Sewing machines—1251—T. Webb.  
Signal lights, magneto-electric—1308—J. H. Johnson.  
Signals, railway—1230—R. F. Chapman.  
Steel, &c., manufacture of—1122—J. Hargreaves.  
Stillages—1317—W. Bradbury.  
Swimming, &c., apparatus—1396—J. Reilly.  
Telegraph posts, &c.—1319—P. Haenlein and J. and R. G. Fisher.  
Telegraph wires, apparatus for laying, &c.—1307—L. Delperdange.  
Telegraphs—1279—C. D. Abel.  
Valves—1384—W. Bracewell, W. Pickup, and B. Lund.  
Valves—1102—J. Shore.  
Wagons—1273—J. and J. Lomax.  
Waistcoats—1370—G. Sims.  
Weeding apparatus—1312—H. A. Bonneville.  
Wrappers—1090—J. W. Wallis.  
Writing, apparatus for facilitating learning—1276—H. A. Bonneville.  
Yarns—1145—G. Ripley.  
Yarns—1283—G. A. J. Schott and J. S. Rosenthal.

### INVENTIONS WITH COMPLETE SPECIFICATIONS FILED.

- Fire-arms, breech-loading—1449—J. H. Johnson.  
Gases—1448—G. T. Bousfield.

### PATENTS SEALED.

- |  |                        |
|--|------------------------|
| 3107. J. E. Boyd.  | 3401. W. Bradburn.     |
| 3117. C. Crockett.                                       | 3428. F. Leonardt.     |
| 3120. J. H. Atterbury & S. Woolfe.                       | 318. S. L. Lucena.     |
| 3152. W. Clark.  | 646. W. Clark.         |
| 3264. R. Clayton, J. Raper, J. Goulding, and W. Howarth. | 669. J. E. Asselin.    |
|  | 858. H. Fassmann.      |
|  | 975. H. A. Bonneville. |
| 3314. A. V. Newton.                                      |                        |

*From Commissioners of Patents' Journal, May 28th.*

### PATENTS SEALED.

- |                                |                                 |
|--------------------------------|---------------------------------|
| 3137. J. Wadsworth.            | 3233. C. E. Samuelson.          |
| 3139. E. Hughes.               | 3244. H. Dines.                 |
| 3143. J. Field.                | 3259. W. E. Newton.             |
| 3149. H. Bateman.              | 3266. V. Gallet.                |
| 3153. J. Ramsbottom.           | 418. T. Greenwood & J. Keats.   |
| 3167. J. Nuttall.              | 745. J. Westwood and R. Ballie. |
| 3171. J. T. A. Mallet.         | 769. A. V. Newton.              |
| 3174. B. J. B. Mills.          | 783. J. Robinson.               |
| 3184. J. Broadbent.            | 864. W. E. Newton.              |
| 3193. T. Bayley and J. Taylor. |                                 |

### PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

- |                     |                     |
|---------------------|---------------------|
| 1274. E. A. Cowper. | 1294. W. Clark.     |
| 1314. D. Clark.     | 1299. W. Law.       |
| 1307. H. Redfern.   | 1357. G. E. Dering. |
| 1349. J. Young.     | 1311. C. Boutet.    |
| 1306. G. Davies.    | 1474. W. E. Newton. |

### PATENTS ON WHICH THE STAMP DUTY OF £100 HAS BEEN PAID.

- |                    |                                |
|--------------------|--------------------------------|
| 1247. J. Craig.    | 1303. S. Chatwood.             |
| 1272. M. Cavanagh. | 1316. H. Moule and J. Bannehr. |
| 1288. W. Baker.    |                                |